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RoboCup 2004: Robot Soccer World Cup VIII

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Preface

These are the proceedings of the RoboCup 2004 Symposium, held at the Instituto Superior Técnico, in Lisbon, Portugal in conjunction with the RoboCup competition. The papers presented here document the many innovations in robotics that result from RoboCup. A problem in any branch of science or engineering is how to devise tests that can provide objective comparisons between alternative methods. In recent years, competitive engineering challenges have been established to motivate researchers to tackle difficult problems while providing a framework for the comparison of results. RoboCup was one of the first such competitions and has been a model for the organization of challenges following sound scientific principles. In addition to the competition, the associated symposium provides a forum for researchers to present refereed papers. But, for RoboCup, the symposium has the greater goal of encouraging the exchange of ideas between teams so that the competition, as a whole, progresses from year to year and strengthens its contribution to robotics.

One hundred and eighteen papers were submitted to the Symposium. Each paper was reviewed by at least two international referees; 30 papers were accepted for presentation at the Symposium as full papers and a further 38 were accepted for poster presentation. The quality of the Symposium could not be maintained without the support of the authors and the generous assistance of the referees.

The Symposium was co-located with the 5th IFAC/EURON International Symposium on Intelligent Autonomous Vehicles (IAV 2004) and featured four distinguished plenary speakers: Hugh Durrant-Whyte, Luigia Carlucci Aiello, James Albus, and Shigeo Hirose. The program included a discussion panel on Applications of RoboCup Research whose members were Hiroaki Kitano, Christian Philippe, and M. Isabel Ribeiro. The panel was organized and moderated by Hans-Dieter Burkhard.

RoboCup has grown into a major international meeting with many people contributing their time and effort. The Symposium organization was made easy for us by the RoboCup Organizing Committee. We particularly thank the RoboCup General Chairs, Pedro Lima and Luis Custódio and their team. Thanks also to the Institute for Systems and Robotics for their support of the Symposium.

October 2004

Daniele Nardi
Martin Riedmiller
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